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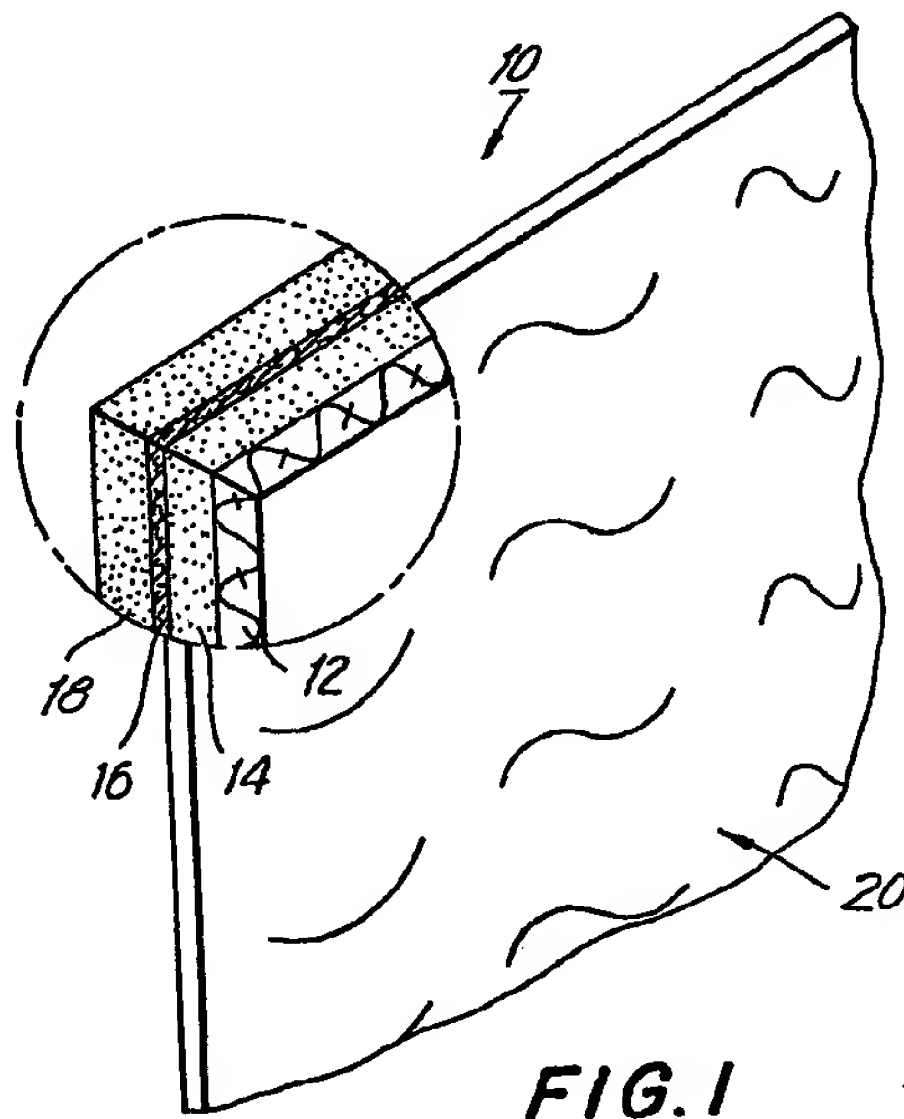
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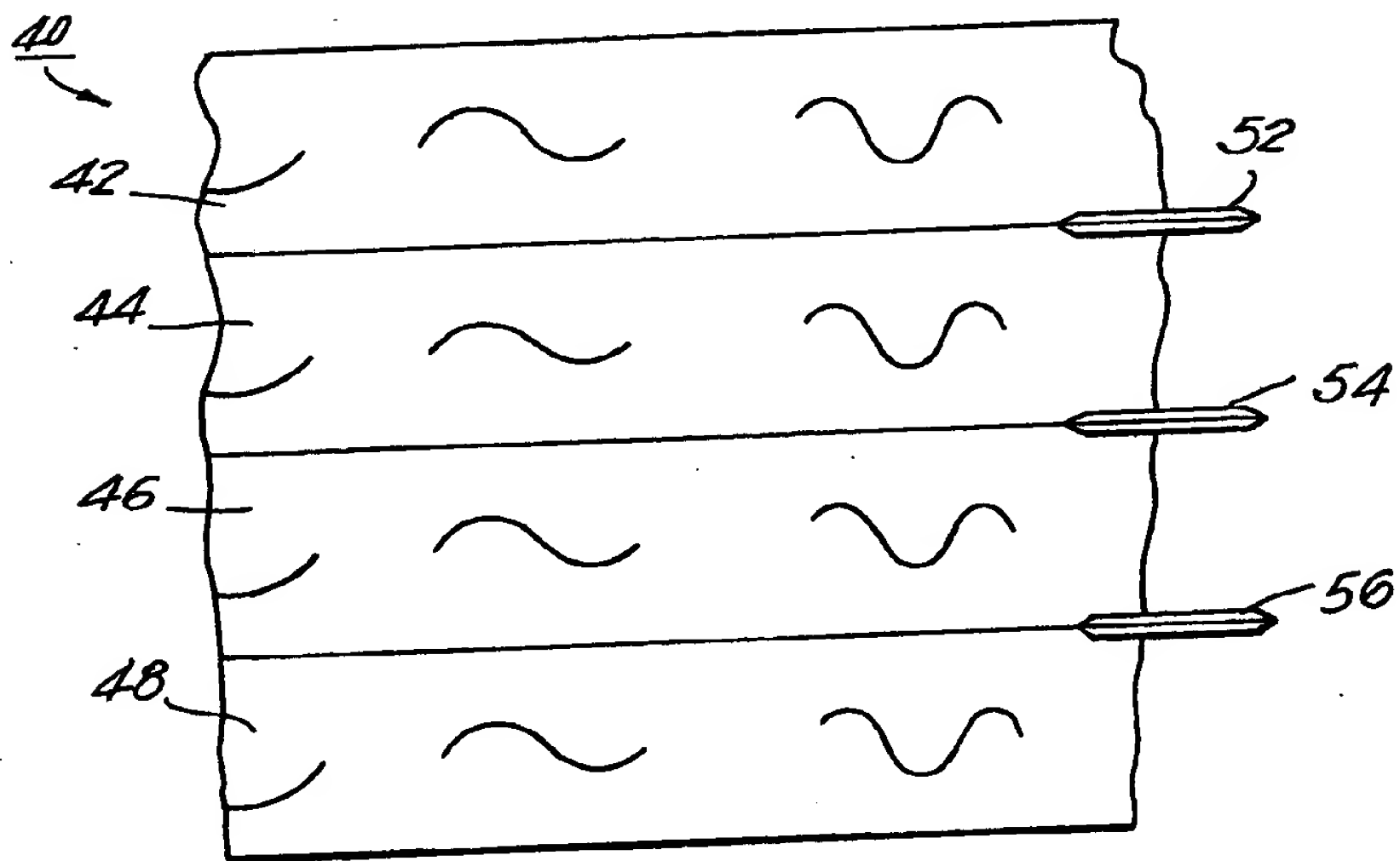
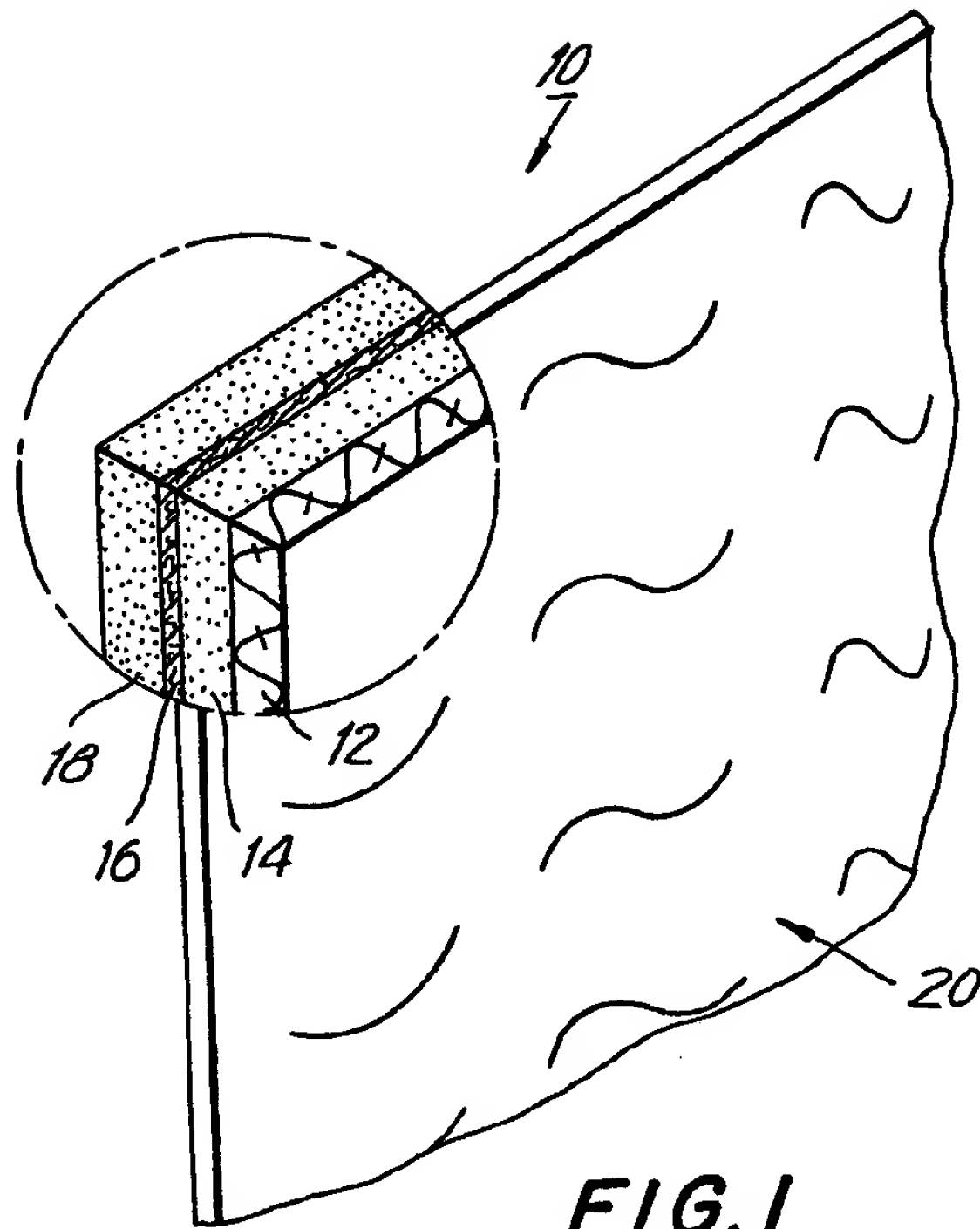
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(54) Self adhesive covering material for
a wall or the like and method of making
same

(57) A self-adhesive wall covering (10) easily removable from a wall, consists essentially of a laminate of a layer (12) of fabric optionally having a visible pattern (20) on one side and a barrier paper (14) adhesively fixed to the other side. A layer (16) of pressure sensitive adhesive is coated onto the barrier paper (14) and a layer (18) of release paper is secured to the pressure sensitive adhesive (16) as protection and to prevent inadvertent adhesion of the laminate wall covering to a surface. When the release paper (18) is removed, the pressure sensitive adhesive (16) is exposed and serves as the medium by which the wall covering adheres to the wall. Preferably, the barrier paper (14) is an acrylic-saturated paper and the pressure sensitive adhesive (16) is a polyvinyl acetate (PVA) adhesive.



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SPECIFICATION

Self-adhesive covering material for a wall or the like and method of making same

5 This invention relates to a self-adhesive wall covering or the like and a method of making same and, more particularly, to a laminate wall covering (or the like) that is easily removable from a wall and that
10 includes a fabric (as opposed to paper) as its outer layer.

Wall coverings are formed typically of paper material having a pattern or design on one surface, the other surface, or backing, being coated by the
15 user with a suitable adhesive, such as glue, cement, or the like (typically known as "wallpaper paste") by which the wall covering may be secured to a wall, ceiling or other surface. Other types of wall coverings are formed of fabric, such as cotton, polyester
20 and cotton, a polyester blend, or the like, having a design or pattern formed on what is typically referred to as the front surface and whose rear surface is adapted to be coated by the user with the aforementioned adhesive in order to secure the
25 fabric-type wall covering to a surface.

Generally, in both types of wall coverings, once the wall covering is applied to the surface, it may be shifted or adjusted thereon to a limited degree until the adhesive cures, or dries. Thereafter, it is difficult,
30 if not impossible, to remove the wall covering from the surface without the use of additional tools or artificial means. For example, it is known to "steam" the aforementioned types of wall coverings to remove them from the surface to which they adhere.
35 Also, chemicals are available to "strip" the wall covering from that surface. Finally, mechanical scraping tools may be used to remove the wall covering. Unfortunately, even when extreme care is utilized, portions of the wall covering, such as its
40 "backing", nevertheless may remain secured to the surface from which the wall covering is to be removed.

It is desirable to provide a fabric-type wall covering that is manufactured with a suitable adhesive
45 backing, thus resulting in a so-called self-adhesive wall covering that may be applied to a surface without requiring the use of additional cement, glue or wallpaper paste. Although suitable pressure-sensitive adhesives have been applied to paper wall
50 coverings, attempts to utilize those same adhesives with fabric-type wall coverings (i.e. wall coverings made of cotton, flannel, or the like) generally have not met with success. Typically, fabric-type wall coverings having self-adhesive backings have fallen
55 from the walls to which they were applied shortly after such application. Because of the improved appearance and overall effect that is attained by the use of fabric-type wall coverings, it is desirable to provide such a fabric-type wall covering that self-
60 adheres to a surface. It is readily appreciated that a self-adhesive wall covering avoids the task and mess associated with conventional wall coverings that require application thereto of cement, glue or wallpaper paste by the user in order to apply, or "hang",
65 that wall covering.

Therefore, it is an object of the present invention to provide a self-adhesive fabric-type wall covering or the like and a method of producing such a wall covering in which the disadvantages and defects
70 noted above are obviated or mitigated.

According to the present invention, there is provided a self-adhesive covering material for a wall or the like and which is easily removable from a wall, consisting essentially of:

- 75 a layer of fabric having a visible surface thereon;
- a barrier paper having one surface adhesively fixed to the other surface of said fabric;
- a layer of pressure sensitive adhesive coated onto the other surface of said barrier paper and prevented
80 by said barrier paper from leaching through said fabric to interfere with said visible surface; and
- a layer of release paper removably secured to said pressure sensitive adhesive such that when said release paper is removed to expose said pressure
85 sensitive adhesive, the wall covering is adherable to a wall by means of the exposed pressure sensitive adhesive.

According to a further aspect of the present invention there is provided a method of producing a
90 covering material adapted to adhere to and be easily removed from a wall or the like, comprising the steps of:

- forming a web of fabric;
- gluing to the one surface of said fabric a web of
95 barrier paper;
- coating the exposed surface of said barrier paper with a layer of pressure sensitive adhesive;
- applying to said layer of pressure sensitive adhesive a removable web of release paper thereby
100 forming a laminate.

Preferably, the barrier paper is an acrylic-saturated paper and the pressure sensitive adhesive is a polyvinyl acetate (PVA) adhesive.

An embodiment of the present invention will now be described, by way of example, with reference to the accompanying drawing, in which:-

Figure 1 is a partially magnified perspective view of a preferred embodiment of the wall covering in accordance with the present invention; and

110 *Figure 2* is a schematic representation of the manner in which the wall covering of this invention may be formed.

Referring now to *Figure 1*, there is illustrated a preferred embodiment of the laminated construction
115 of the fabric-type wall covering of the present invention. This wall covering 10 preferably is in the form of a web having a width of the order of about four inches, although wider webs (or sheets) may be used. It is appreciated that this wall covering may be
120 used as a border, trim or the like on any suitable surface, such as a wall, ceiling, etc.

Wall covering 10 is formed of a layer 12 of fabric, the fabric preferably being formed of cotton, polyester and cotton, a polyester blend, rayon, polyester
125 rayon, or the like. By utilizing a fabric as opposed to paper, wall covering 10 provides a finer, more elegant appearance. Fabric 12 specifically is not constructed of paper.

The front surface, that is, the surface that is visible
130 once wall covering 10 is applied to, for example, a

wall, optionally has a visible pattern 20 formed thereon. This pattern may be silk-screened or printed in any other conventional manner, and the particular technique for printing or otherwise forming the pattern forms no part of the present invention per se.

The rear surface of fabric layer 12, that is, the surface that is not visible once wall covering 10 is applied to a wall, has a layer of barrier paper 14 adhesively affixed thereto by suitable means, such as a suitable cement or glue that normally is used to adhere paper to fabric. Preferably, the barrier paper is acrylic-saturated paper preferably white in color such as 4 mil acrylic binder saturated paper manufactured by Kimberly-Clark.

A layer of pressure sensitive adhesive 16 is coated onto barrier paper 14. It is appreciated that the pressure sensitive adhesive should not be applied directly to fabric 12 because, if so applied, it would leach through the fabric to the front viewable surface thereof, thus interfering with pattern 20. Stated otherwise, the leached adhesive would destroy the appearance of the wall covering but for the provision of barrier paper 14. Pressure sensitive adhesive 16 preferably is a water-based polyvinyl acetate (PVA) adhesive.

To protect the pressure sensitive adhesive from contamination or dirt, and to avoid inadvertent adherence of wall covering 10 to a surface or to an article other than that specifically intended by the user, a layer of release paper 18 is secured to the pressure sensitive adhesive. The release paper may be suitably coated, for example, with silicone as is conventional, so as to be easily removable from the pressure sensitive adhesive merely by peeling the paper away therefrom. Of course, once release paper 18 is removed, pressure sensitive adhesive 16 is exposed and serves as the medium by which wall covering 10 is adhesively applied to a surface. Preferably, the release paper is a fully bleached polyethylene paper with glossy finish and coated with silicone.

The manner in which wall covering 10 may be produced now will be described. It is appreciated that fabric 12 and barrier paper 14 may be prepared separately. A suitable conventional glue may be applied by an application roller to one surface of the barrier paper and the glued barrier paper is pressed against the rear surface of fabric 12, as by passing the fabric and paper over heated rollers to fuse the paper to the fabric. Thereafter, the pressure sensitive adhesive 16 may be applied by an application roller to the other side, or surface of the barrier paper, and then release paper 18 is applied to the pressure sensitive adhesive, resulting in the construction shown in Figure 1. As an alternative, release paper 18 may be applied to the pressure sensitive adhesive prior to adhering barrier paper 14 to fabric 12.

Preferably, the wall covering shown in Figure 1 is prepared as a much wider web, such as shown in Figure 2. As an example, several rows of pattern 20 may be provided across the width of the web. As shown in Figure 2, such a relatively wide web 40 is formed of adjacent rows 42, 44, 46, 48, etc., each row having a distinctive pattern. If desired, the very same pattern may be replicated from row to row.

The wide web 40, shown in Figure 2, then may have the laminate formed of the barrier paper, the pressure sensitive adhesive and the release paper secured to the rear surface thereof in the manner mentioned above. Then, the individual rows 42, 44, 46, 48, etc. are separated by advancing the relatively wide web 40 longitudinally past suitable cutting blades, or wheels, 52, 54, 56, etc. As web 40 advances, these cutting blades serve to slit the web longitudinally to divide that web into respective webs of smaller width, each such web corresponding to the structure shown in Figure 1.

It is recognized that suitable automatic mechanisms may be used to provide the respective layers shown in Figure 1 and to press those layers together in order to form the laminated structure. That is, one surface of the barrier paper may be coated with a layer of glue either by an automatic coating mechanism, such as an application roller, or, if desired, this glue coating may be applied manually. The barrier paper having the glue coating thereon then may be pressed against fabric 12, again either by automatic mechanisms, such as by heated rollers, or manually, to adhesively affix the fabric to the barrier paper.

Then, the pressure sensitive adhesive may be coated onto the barrier paper and the release paper thereafter may be applied to that adhesive. Alternatively, and as mentioned above, the laminated structure comprised of the barrier paper, the pressure sensitive adhesive and the release paper may be formed as a separate unit, and this separate unit then may be glued to the rear surface of the fabric.

Preferably, the glue which may be used to adhere the barrier paper to the fabric is applied to the barrier paper by way of a conventional application roller. Also, an application roller preferably is used to coat the barrier paper with the pressure sensitive adhesive.

The foregoing has described a laminated fabric-type wall covering that is easily removable from a wall, ceiling or other surface. The barrier paper is firmly secured to the fabric, and the pressure sensitive adhesive which is coated on the barrier paper permits the wall covering to be adjusted on the wall or ceiling (or other surface) and also permits that wall covering to be removed relatively easily therefrom. The barrier paper prevents the pressure sensitive adhesive from leaching through to the viewable surface of the fabric.

CLAIMS

1. A self-adhesive covering material for a wall or the like and which is easily removable from a wall, consisting essentially of:
 - a layer of fabric having a visible surface thereon;
 - a barrier paper having one surface adhesively fixed to the other surface of said fabric;
 - a layer of pressure sensitive adhesive coated onto the other surface of said barrier paper and prevented by said barrier paper from leaching through said fabric to interfere with said visible surface; and
 - a layer of release paper removably secured to said pressure sensitive adhesive such that when said release paper is removed to expose said pressure

sensitive adhesive, the wall covering is adherable to a wall by means of the exposed pressure sensitive adhesive.

2. A covering material as claimed in Claim 1, wherein said barrier paper is acrylic-saturated paper.

3. A covering material as claimed in Claim 2, wherein said barrier paper is white acrylic-saturated paper to avoid interference in the observation of a visible pattern on the visible surface of the fabric layer when said wall covering is adhered to the wall.

4. A covering material as claimed in any of Claims 1 to 3, wherein said pressure sensitive adhesive is a water-based polyvinyl acetate.

5. A covering material as claimed in any of Claims 1 to 4, wherein said fabric consists essentially of a polyester and cotton.

6. A self-adhesive covering material for a wall or the like and which is easily removable from a wall and formed by the process of:

providing a web of fabric;
providing a web of barrier paper;
coating one surface of said barrier paper with a layer of glue;

pressing a surface of said fabric and the glue-coated surface of said barrier paper together to adhesively fix said web of fabric to said web of barrier paper;

coating the other surface of said barrier paper with a layer of pressure sensitive adhesive; and
releasably adhering a web of release paper to the layer of pressure sensitive adhesive.

7. A covering material as claimed in Claim 6, wherein said pressure sensitive adhesive is a water-based polyvinyl acetate.

8. A covering material as claimed in Claim 6 or 7, wherein said barrier paper is an acrylic-saturated paper.

9. A covering material as claimed in any of Claims 6 to 8, in which the web of fabric is provided with a visible pattern on one surface thereof.

10. A method of producing a covering material adapted to adhere to and be easily removed from a wall or the like, comprising the steps of:

forming a web of fabric;
glueing to the one surface of said fabric a web of barrier paper;

coating the exposed surface of said barrier paper with a layer of pressure sensitive adhesive;
applying to said layer of pressure sensitive adhesive a removable web of release paper thereby forming a laminate.

11. A method as claimed in Claim 9, comprising slitting the laminate of fabric, barrier paper and release paper longitudinally to form individual multiple-layered webs.

12. A method as claimed in Claim 11, comprising forming on the surface of the web of fabric a plurality of rows of visible patterns, and slitting the laminate to form the individual multiple-layered webs each corresponding to a respective row of visible pattern.

13. A method as claimed in any of Claims 10 to 12, wherein said step of glueing said web of barrier paper to said fabric comprises coating said web with glue and passing said web and fabric between heated rolls.

14. A method as claimed in any of claims 10 to 13, wherein said step of coating said barrier paper with said pressure sensitive adhesive comprises rolling pressure sensitive adhesive onto said barrier paper.

15. A method as claimed in any one of Claims 10 to 14, wherein said pressure sensitive adhesive is a water-based polyvinyl acetate.

16. A method as claimed in any of Claims 10 to 15, wherein said barrier paper is an acrylic-saturated paper.

17. A self-adhesive covering material for a wall or the like, when produced by the method as claimed in any of Claims 10 to 16.

18. A self-adhesive covering material for a wall or the like, substantially as hereinbefore described with reference to the accompanying drawing.

19. A method of producing a covering material for a wall or the like, substantially as hereinbefore described with reference to the accompanying drawing.

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